

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR RESOURCES

OPERATING PERMIT

University of Rhode Island

PERMIT NO. RI-13-06

(Renewal date: August 23, 2006) (Expiration date: August 23, 2011)

Pursuant to the provisions of Air Pollution Control Regulation No. 29, this operating permit is issued to:

University of Rhode Island 523 Plains Road Kingston, RI 02881

This permit shall be effective from the date of its issuance. All terms and conditions of the permit are enforceable by the USEPA and citizens under the federal Clean Air Act, 42 U.S.C. 7401, et seq., unless specifically designated as not federally enforceable.

Stephen Majkut, Chief Date of issuance: 8/23/06

Stephen Majkut, Chief Office of Air Resources

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SECTION I. SOURCE SPECIFIC CONDITIONS

A. Requirements for Emission Unit B001

The following requirements are applicable to:

• Emission Unit B001, which is a 36.3 MMBTU/hr Babcock and Wilcox water tube boiler, Model No. 9-52, equipped with a Todd/Variflame low-NO_x burner and flue gas recirculation, capable of burning #2 fuel oil and natural gas to produce a maximum of 30,000 lbs/hr of steam.

1. Emission Limitations

a. Opacity

Visible emissions from Emission Unit B001 shall not exceed 10% opacity (6-minute average). [Approval Nos. 1468-1471(H)(7), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

b. Natural Gas Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from Emission Unit B001 shall not exceed 0.034 lbs per million BTU heat input or 1.23 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(D)(1)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from Emission Unit B001 shall not exceed 0.15 lbs per million BTU heat input or 5.45 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(D)(1)(b)]

(3) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from Emission Unit B001 shall not exceed 0.0028 lbs per million BTU heat input or 0.10 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(D)(1)(c)]

c. Oil Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from Emission Unit B001 shall not exceed 0.076 lbs per million BTU heat input or 2.65 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(D)(2)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from Emission Unit B001 shall not exceed 0.16 lbs per million BTU heat input or 5.59 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(D)(2)(b)]

(3) Sulfur Dioxide (SO_2)

- (a) All fuel burned in Emission Unit B001 shall contain no more than 0.3 percent sulfur by weight. [Approval Nos. 1468-1471(D)(2)(c)(1), 8.2]
- (b) The emission rate of sulfur dioxide discharged to the atmosphere from Emission Unit B001 shall not exceed 10.9 lbs/hr. [Approval Nos. 1468-1471(D)(2)(c)(2)]

(4) Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from Emission Unit B001 shall not exceed 0.06 lbs per million BTU heat input or 2.09 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(D)(2)(d), 13.2.1]

(5) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from Emission Unit B001 shall not exceed 0.0014 lbs per million BTU heat input or 0.05 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(D)(2)(e)]

2. Operating Requirements

a. The maximum firing rate of Emission Unit B001 shall not exceed 36,300 ft³/hr of natural gas or 253.5 gal/hr of #2 fuel oil. [Approval Nos. 1468-1471(H)(1)]

b. The flue gas recirculation system for Emission Unit B001 shall be in full operation whenever Emission Unit B001 is in operation, except during low boiler load conditions where flame stability problems preclude the use of the flue gas recirculation system. The low load point is 6,000 lbs per hour steam. [Approval Nos. 1468-1471(H)(6)]

3. Monitoring Requirements

a. Opacity

Continuous emission monitoring equipment shall be operated and maintained for opacity when Emission Unit B001 is operating on fuel oil. [6.2.1, Approval Nos. 1468-1471(I)(1), 29.6.3(b)]

- **b.** Natural gas and fuel oil flows for Emission Unit B001 shall be continuously measured. [Approval Nos. 1468-1471(I)(3), 29.6.3(a), 40 CFR 64]
- **c.** Steam production shall be monitored continuously for emission unit B001. [29.6.3(a), 40 CFR 64]
- **d.** The oxygen content of the flue gas shall be monitored continuously for emission unit B001. [29.6.3(a), 40 CFR 64]
- e. The damper position of the FGR fan for emission unit B001 shall be monitored continuously. [29.6.3(a), 40 CFR 64]

4. Testing Requirements

a. Particulates

Compliance with the particulate emissions limitations contained in Condition I.A.1.c(4) of this permit, shall be determined by emission testing conducted by the permittee according to Method 5 of 40 CFR 60, Appendix A, or another method approved by the Office of Air Resources and the USEPA, shall be used. [13.3.1]

The requirements of particulate emissions testing may be waived if the Director and the USEPA:

- (1) Specifies or approves, in a specific case, the use of a reference method with minor changes in methodology; or
- (2) Approves the use of an equivalent or alternative method the results of which he has determined to be adequate for indicating whether the permittee is in compliance; or

(3) Finds that the permittee has demonstrated by other means to the Director's and the USEPA's satisfaction that the source is in compliance with the relevant emissions standards. [13.3.3]

In the absence of data from particulate emissions testing, the Director and the USEPA may determine that an emissions unit is or is not in compliance with the emissions limitations of Condition I.A.1.c(4) of this permit based on available information including, but not limited to, type of fuel burned, design of unit, efficiency of air pollution control systems, operating and maintenance procedures, and emission test results on similar units. [13.3.2]

b. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.A.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2, 40 CFR 60.45c(a)(8)]

c. Sulfur Dioxide (SO₂)

- (1) Compliance with fuel oil sulfur limits may be determined based on a certification from the fuel supplier. [40 CFR 60.42c(h)(1), 40 CFR 60.44c(h), Approval Nos. 1468-1471(K)(1), 29.6.3(b)]
- Fuel supplier certification shall include the following information: [40 CFR 60.48c(f), Approval Nos. 1468-1471(K)(2), 29.6.3(b)]
 - (a) The name of the oil supplier; [40 CFR 60.48c(f)(1)(i), Approval Nos. 1468-1471(k)(2)(a)]
 - (b) A statement from the oil supplier that the oil complies with the specification for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78 "Standard Specification for Fuel Oils"; [40 CFR 60.48c(f)(1)(ii), Approval Nos. 1468-471(k)(2)(b)]
 - (c) The sulfur content of the fuel oil; and [Approval Nos. 1468-1471(k)(2)(c)]
 - (d) The method used to determine the sulfur content of the oil. [Approval Nos. 1468-1471(k)(2)(d)]
- (3) As an alternative to fuel supplier certification, the permittee may elect to sample the fuel prior to combustion. Sampling and analysis

shall be conducted for the oil in the initial tank of oil to be fired in Emission Unit B001 and after each new shipment of oil is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. [40 CFR 60.46c(d)(2), Approval Nos. 1468-1471(K)(3)]

d. Nitrogen Oxides (NO_x)

Emissions testing for compliance with the NO_x emission limitations for natural gas and fuel oil shall be conducted annually. Emission testing shall comply with the following requirements. [27.5.7(a), Approval Nos. 1468-1471(J)(1), 40CFR60.8(a)]

- (1) A stack testing protocol shall be submitted to the Office of Air Resources for review and approval prior to the performance of any stack tests. The permittee shall provide the Office of Air Resources at least 60 days prior notice of any performance test. [27.5.7(b), Approval Nos. 1468-1471(J)(2)]
- (2) All test procedures used for emission testing shall be in accordance with the methods set forth in Appendix A of 40 CFR 60, or another method in Appendix A of 40 CFR 60, or another method approved by the Office of Air Resources and the USEPA. [27.5.7(c), Approval Nos. 1468-1471(J)(3)]
- (3) The permittee shall install any and all test ports or platforms necessary to conduct the required stack testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment. [27.5.7(d), Approval Nos. 1468-1471(J)(4), 40 CFR 60.8(e)]
- (4) All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitation. [27.5.7(e), Approval Nos. 1468-1471(J)(5), 40 CFR 60.8(c)]
- (5) All emissions testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable. [27.5.7(f), Approval Nos. 1468-1471(J)(7)]
- (6) Emissions testing shall consist of 3 one hour test runs. Compliance with the emission limitation must be demonstrated for each test run. [27.5.5, 40 CFR 60.8(f)]
- (7) A final report of the results of emission testing shall be submitted

to the Office of Air Resources no later than 60 days following completion of the testing. [27.5.7(g), Approval Nos. 1468-1471(J)(6)]

5. Recordkeeping Requirements

- a. The permittee shall record and maintain records of the amounts of fuel combusted during each day. [40 CFR 60.48c(g)]
- **b.** Natural gas and fuel oil flows for Emission Unit B001 shall be continuously recorded. [Approval Nos. 1468-1471(I)(3), 29.6.3(a), 40 CFR 64]
- c. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of Emission Unit B001. [40 CFR 60.7(b)]
- d. The permittee shall retain copies of all fuel supplier certifications or fuel oil analyses for each calendar quarter. These records shall be made accessible for review by the Office of Air Resources or the USEPA. This quarterly record shall include a certified statement, signed by the permittee, that the records of fuel supplier certifications or fuel oil analyses submitted represent all of the fuel combusted during the quarter. [40 CFR 60.46c(d)(2) and 60.48c(e)(11), Approval Nos. 1468-1471(L)(11)]
- e. The oxygen content of the flue gas for emission unit B001 shall be recorded continuously. [29.6.3(a), 40 CFR 64]
- **f.** Steam production for emission unit B001 shall be recorded continuously. [29.6.3(a), 40 CFR 64]
- g. The permittee shall record the oxygen content of the flue gas, the fuel flow rate and steam production and the damper position of the FGR fan a minimum of once per day. The date, time and measurement shall be recorded. [29.6.3(a), 40 CFR 64, Approval No. 1468-1471(I.2)]
- **h.** The permittee shall maintain records of any scheduled and unscheduled maintenance to emission unit B001. [29.6.3(b)]
- i. The permittee shall maintain a record of the boiler load and corresponding FGR damper position based on the most recent adjustment/calibration of the FGR damper control system. [29.6.3(a), 40 CFR 64]

6. Reporting Requirements

a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.A. of this permit or any other applicable air pollution control rules and regulations. [Approval Nos. 1468-1471(L)(12)]

- **b.** The permittee shall submit to the Administrator, on a quarterly basis, the quarterly report as specified in condition I.A.5.d. of this permit. Each quarterly report shall be postmarked by the 30th day following the end of the reporting period. [60.48c(d)]
- c. The permittee shall notify the Office of Air Resources whenever the oxygen content of the flue gas from B001 is less than 2% or greater than 8%. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]
- d. The permittee shall notify the Office of Air Resources whenever the damper position of the FGR fan for B001 is not in the correct position for the corresponding boiler load.. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]

7. Other Permit Conditions

- a. To the extent consistent with the requirements of Section I.A of this permit and applicable federal and state laws, B001 shall be operated in accordance with the representation of the equipment in the preconstruction permit application prepared by TRC Environmental Corporation dated October 1997 (TRC Project No. 23055). [Approval Nos. 1468-1471(M)(2)]
- b. The Sulfur Dioxide emission limits and fuel oil sulfur limits in section I.A. of this permit shall apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(i)]
- c. The Particulate Matter and opacity standards in section I.A. of this permit shall apply at all times, except during periods of startup, shutdown, or malfunction. [40 CFR 60.43c(d)]
- **d.** Emission Unit B001 is subject to the requirements of 40 CFR 60 Subpart A, "General Provisions." Compliance with all applicable provisions therein is required, unless otherwise stated in this permit.

B. Requirements for Emission Units B002 and B003

The following requirements are applicable to:

• Emission Units B002 and B003, which are 72.4 MMBTU/hr Babcock and Wilcox water tube boilers, Model No. 103-66, equipped with a Todd/Variflame low-NO_x burners and flue gas recirculation, capable of burning #2 fuel oil and natural gas to produce a maximum of 60,000 lbs/hr of steam each.

1. Emission Limitations

a. Opacity

Visible emissions from Emission Units B002 and B003 shall not exceed 10% opacity (6-minute average). [Approval Nos. 1468-1471(H)(7), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

b. Natural Gas Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from Emission Units B002 and B003 shall not exceed 0.034 lbs per million BTU heat input or 2.46 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(E)(1)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from Emission Units B002 and B003 shall not exceed 0.15 lbs per million BTU heat input or 10.9 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(E)(1)(b)]

(3) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from Emission Units B002 and B003 shall not exceed 0.0028 lbs per million BTU heat input or 0.20 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(E)(1)(c)]

c. Oil Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from Emission Units B002 and B003 shall not exceed 0.076 lbs per million BTU heat input or 5.31 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(E)(2)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from Emission Units B002 and B003 shall not exceed 0.16 lbs per million BTU heat input or 11.2 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(E)(2)(b)]

(3) Sulfur Dioxide (SO_2)

- (a) All fuel burned in Emission Units B002 and B003 shall contain no more than 0.3 percent sulfur by weight. [Approval Nos. 1468-1471(E)(2)(c)(1), 8.2]
- (b) The emission rate of sulfur dioxide discharged to the atmosphere from Emission Units B002 and B003 shall not exceed 21.6 lbs/hr. [Approval Nos. 1468-1471(E)(2)(c)(2)]

(4) Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from Emission Units B002 and B003 shall not exceed 0.06 lbs per million BTU heat input or 4.19 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(E)(2)(d), 13.2.1]

(5) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from Emission Units B002 and B003 shall not exceed 0.0014 lbs per million BTU heat input or 0.10 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(E)(2)(e)]

2. Operating Requirements

- a. The maximum firing rate of Emission Units B002 and B003 shall not exceed 72,400 ft³/hr of natural gas or 507.6 gal/hr of #2 fuel oil. [Approval Nos. 1468-1471(H)(2)]
- b. The flue gas recirculation system for Emission Units B002 and B003 shall be in full operation whenever Emission Units B002 and B003 are in operation, except during low boiler load conditions where flame stability problems preclude the use of the flue gas recirculation system. The low load point is 12,000 lbs per hour steam. [Approval Nos. 1468-1471(H)(6)]

3. Monitoring Requirements

a. Opacity

Continuous emission monitoring equipment shall be operated and maintained for opacity when Emission Units B002 and B003 are operating on fuel oil. [6.2.1, Approval Nos. 1468-1471(I)(1), 29.6.3(b)]

- **b.** Natural gas and fuel oil flows for Emission Units B002 and B003 shall be continuously measured. [Approval Nos. 1468-1471(I)(3), 29.6.3(a),40 CFR 64]
- c. Steam production shall be monitored continuously for emission units B002 and B003. [29.6.3(a), 40 CFR 64]
- **d**. The oxygen content of the flue gas shall be monitored continuously for emission units B002 and B003. [29.6.3(a), 40 CFR 64]
- e. The damper position of the FGR fan for emission units B002 and B003 shall be monitored continuously. [29.6.3(a), 40 CFR 64]

4. Testing Requirements

a. Particulates

Compliance with the particulate emissions limitations contained in Condition I.B.1.c(4) of this permit, shall be determined by emission testing conducted by the permittee according to Method 5 of 40 CFR 60, Appendix A, or another method approved by the Office of Air Resources and the USEPA, shall be used. [13.3.1]

The requirements of particulate emissions testing may be waived if the Director and the USEPA:

- (1) Specifies or approves, in a specific case, the use of a reference method with minor changes in methodology; or
- (2) Approves the use of an equivalent or alternative method the results of which he has determined to be adequate for indicating whether the permittee is in compliance; or
- (3) Finds that the permittee has demonstrated by other means to the Director's and the USEPA's satisfaction that the source is in compliance with the relevant emissions standards. [13.3.3]

In the absence of data from particulate emissions testing, the Director and the USEPA may determine that an emissions unit is or is not in compliance with the emissions limitations of Condition I.B.1.c(4) of this permit based on available information including, but not limited to, type of fuel burned, design of unit, efficiency of air pollution control systems, operating and maintenance procedures, and emission test results on similar units. [13.3.2]

b. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.B.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2, 40 CFR 60.45c(a)(8)]

c. Sulfur Dioxide (SO₂)

- (1) Compliance with fuel oil sulfur limits may be determined based on a certification from the fuel supplier. [40 CFR 60.42c(h)(1), 40 CFR 60.44c(h), Approval Nos. 1468-1471(K)(1), 29.6.3(b)]
- Fuel supplier certification shall include the following information: [40 CFR 60.48c(f), Approval Nos. 1468-1471(K)(2)), 29.6.3(b)]
 - (a) The name of the oil supplier; [40 CFR 60.48c(f)(1)(i), Approval Nos. 1468-1471(k)(2)(a)
 - (b) A statement from the oil supplier that the oil complies with the specification for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78 "Standard Specification for Fuel Oils"; [40 CFR 60.48c(f)(1)(ii), Approval Nos. 1468-1471(k)(2)(b)]
 - (c) The sulfur content of the fuel oil; and [Approval Nos. 1468-1471(k)(2)(c)]
 - (d) The method used to determine the sulfur content of the oil. [Approval Nos. 1468-1471(k)(2)(d)]
- (3) As an alternative to fuel supplier certification, the permittee may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the oil in the initial tank of oil to be fired in Emission Units B002 and B003 and after each new shipment of oil is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. [40 CFR 60.46c(d)(2), Approval Nos. 1468-

1471(K)(3)]

d. Nitrogen Oxides (NO_x)

Emissions testing for compliance with the NO_x emission limitations for natural gas and fuel oil shall be conducted annually. Emission testing shall comply with the following requirements. [27.5.7(a), Approval Nos. 1468-1471(J)(1), 40 CFR 60.8(a)]

- (1) A stack testing protocol shall be submitted to the Office of Air Resources for review and approval prior to the performance of any stack tests. The permittee shall provide the Office of Air Resources at least 60 days prior notice of any performance test. [27.5.7(b), Approval Nos. 1468-1471(J)(2)]
- (2) All test procedures used for emission testing shall be in accordance with the methods set forth in Appendix A of 40 CFR 60, or another method in Appendix A of 40 CFR 60, or another method approved by the Office of Air Resources and the USEPA. [27.5.7(c) Approval Nos. 1468-1471(J)(3)]
- (3) The permittee shall install any and all test ports or platforms necessary to conduct the required stack testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment. [27.5.7(d), Approval Nos. 1468-1471(J)(4), 40 CFR 60.8(e)]
- (4) All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitation. [27.5.7(e), Approval Nos. 1468-1471(J)(5), 40 CFR 60.8(c)]
- (5) All emissions testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable. [27.5.7(f), Approval Nos. 1468-1471(J)(7)]
- (6) Emissions testing shall consist of 3 one hour test runs. Compliance with the emission limitation must be demonstrated for each test run. [27.5.5, 40 CFR 60.8(f)]
- (7) A final report of the results of emission testing shall be submitted to the Office of Air Resources no later than 60 days following completion of the testing. [27.5.7(g), Approval Nos. 1468-1471(J)(6)]

5. Recordkeeping Requirements

a. The permittee shall record and maintain records of the amounts of fuel combusted during each day. [40 CFR 60.48c(g)]

- **b.** Natural gas and fuel oil flows for Emission Units B002 and B003 shall be continuously recorded. [Approval Nos. 1468-1471(I)(3), 29.6.3(a), 40 CFR 64]
- c. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of Emission Units B002 and B003. [40 CFR 60.7(b)]
- d. The permittee shall retain copies of all fuel supplier certifications or fuel oil analyses for each calendar quarter. These records shall be made accessible for review by the Office of Air Resources or the USEPA. This quarterly record shall include a certified statement, signed by the permittee, that the records of fuel supplier certifications or fuel oil analyses submitted represent all of the fuel combusted during the quarter. [40 CFR 60.46c(d)(2) and 60.48c(e)(11), Approval Nos. 1468-1471(L)(11)]
- e. The oxygen content of the flue gas for emission units B002 and B003 shall be recorded continuously. [29.6.3(a), 40 CFR 64]
- f. Steam production for emission units B002 and B003 shall be recorded continuously. [29.6.3(a), 40 CFR 64]
- g. The permittee shall record the oxygen content of the flue gas, the fuel flow rate and steam production and the damper position of the FGR fan a minimum of once per day. The date, time and measurement shall be recorded.[29.6.3(a), 40 CFR 64, Approval Nos. 1468-1471(I)(2)]
- h. The permittee shall maintain records of any scheduled and unscheduled maintenance to emission units B002 and B003. [29.6.3(b)]
- i. The permittee shall maintain a record of the boiler load and corresponding FGR damper position based on the most recent adjustment/calibration of the FGR damper control system. [29.6.3(a), 40 CFR 64]

6. Reporting Requirements

a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.B of this permit or any other applicable air pollution control rules and regulations. [Approval Nos. 1468-1471(L)(12)]

b. The permittee shall submit to the Administrator, on a quarterly basis, the quarterly report as specified in condition I.B.5.d. of this permit. Each quarterly report shall be postmarked by the 30th day following the end of the reporting period. [60.48c(d)]

- c. The permittee shall notify the Office of Air Resources whenever the oxygen content of the flue gas from B002 and B003 is less than 2% or greater than 8%. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]
- d. The permittee shall notify the Office of Air Resources whenever the damper position of the FGR fan for B002 and B003 is not in the correct position for the corresponding boiler load. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]

7. Other Permit Conditions

- a. To the extent consistent with the requirements of Section I.B of this permit and applicable federal and state laws, B002 and B003 shall be operated in accordance with the representation of the equipment in the preconstruction permit application prepared by TRC Environmental Corporation dated October 1997 (TRC Project No. 23055). [Approval Nos. 1468-1471(M)(2)]
- **b.** The Sulfur Dioxide emission limits and fuel oil sulfur limits in section I.B. of this permit shall apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(i)]
- c. The Particulate Matter and opacity standards in section I.B. of this permit shall apply at all times, except during periods of startup, shutdown, or malfunction. [40 CFR 60.43c(d)]
- **d.** Emission Units B002 and B003 are subject to the requirements of 40 CFR 60. Subpart A, "General Provisions." Compliance with all applicable provisions therein is required, unless otherwise stated in this permit.

C. Requirements for Emission Unit B004

The following requirements are applicable to:

• Emission Unit B004, which is a 96.5 MMBTU/hr Babcock and Wilcox water tube boiler, Model No. 103-79, equipped with a Todd/Variflame low-NO_x burners and flue gas recirculation, capable of burning #2 fuel oil and natural gas to produce a maximum of 80,000 lbs/hr of steam.

1. Emission Limitations

a. Opacity

Visible emissions from Emission Unit B004 shall not exceed 10% opacity (6-minute average). [Approval Nos. 1468-1471(H)(7), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

b. Natural Gas Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO_2))

The emission rate of nitrogen oxides discharged to the atmosphere from Emission Unit B004 shall not exceed 0.034 lbs per million BTU heat input or 3.28 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(F)(1)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from Emission Unit B004 shall not exceed 0.15 lbs per million BTU heat input or 14.5 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(F)(1)(b)]

(3) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from Emission Unit B004 shall not exceed 0.0028 lbs per million BTU heat input or 0.27 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(F)(1)(c)]

c. Oil Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from Emission Unit B004 shall not exceed 0.076 lbs per million BTU heat input or 7.05 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(F)(2)(a)]

(2) Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from Emission Unit B004 shall not exceed 0.16 lbs per

million BTU heat input or 14.8 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(F)(2)(b)]

(3) Sulfur Dioxide (SO_2)

- (a) All fuel burned in Emission Unit B004 shall contain no more than 0.3 percent sulfur by weight. [Approval Nos. 1468-1471(F)(2)(c)(1), 8.2]
- (b) The emission rate of sulfur dioxide discharged to the atmosphere from Emission Unit B004 shall not exceed 28.8 lbs/hr. [Approval Nos. 1468-1471(F)(2)(c)(2)]

(4) Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from Emission Unit B004 shall not exceed 0.06 lbs per million BTU heat input or 5.56 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(F)(2)(d), 13.2.1]

(5) Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from Emission Unit B004 shall not exceed 0.0014 lbs per million BTU heat input or 0.13 lbs/hr, whichever is more stringent. [Approval Nos. 1468-1471(F)(2)(e)]

2. Operating Requirements

- a. The maximum firing rate of Emission Unit B004 shall not exceed 96,500 ft³/hr of natural gas or 673.4 gal/hr of #2 fuel oil. [Approval Nos. 1468-1471(H)(3)]
- b. The flue gas recirculation system for Emission Unit B004 shall be in full operation whenever Emission Unit B004 is in operation, except during low boiler load conditions where flame stability problems preclude the use of the flue gas recirculation system. The low load point is 16,000 lbs per hour steam. [Approval Nos. 1468-1471(H)(6)]

3. Monitoring Requirements

a. Opacity

Continuous emission monitoring equipment shall be operated and maintained for opacity when Emission Unit B004 is operating on fuel oil.[6.2.1, Approval Nos. 1468-1471(I)(1), 29.6.3(b)]

b. Natural gas and fuel oil flows for Emission Unit B004 shall be continuously measured. [Approval Nos. 1468-1471(I)(3), 29.6.3(a), 40 CFR 64]

- **c**. Steam production shall be monitored continuously for emission unit B004. [29.6.3(a), 40 CFR 64]
- **d.** The oxygen content of the flue gas shall be monitored continuously for emission unit B004. [29.6.3(a), 40 CFR 64]
- e. The damper position of the FGR fan for emission unit B004 shall be monitored continuously. [29.6.3(a), 40 CFR 64]

4. Testing Requirements

a. Particulates

Compliance with the particulate emissions limitations contained in Condition I.C.1.c(4) of this permit, shall be determined by emission testing conducted by the permittee according to Method 5 of 40 CFR 60, Appendix A, or another method approved by the Office of Air Resources and the USEPA, shall be used. [13.3.1]

The requirements of particulate emissions testing may be waived if the Director and the USEPA:

- (1) Specifies or approves, in a specific case, the use of a reference method with minor changes in methodology; or
- (2) Approves the use of an equivalent or alternative method the results of which he has determined to be adequate for indicating whether the permittee is in compliance; or
- (3) Finds that the permittee has demonstrated by other means to the Director's and the USEPA's satisfaction that the source is in compliance with the relevant emissions standards. [13.3.3]

In the absence of data from particulate emissions testing, the Director and the USEPA may determine that an emissions unit is or is not in compliance with the emissions limitations of Condition I.C.1.c(4) of this permit based on available information including, but not limited to, type of fuel burned, design of unit, efficiency of air pollution control systems, operating and maintenance procedures, and emission test results on similar units. [13.3.2]

b. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.C.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2, 40 CFR 60.45c(a)(8)]

c. Sulfur Dioxide (SO₂)

- (1) Compliance with fuel oil sulfur limits may be determined based on a certification from the fuel supplier. [40 CFR 60.42c(h)(1), 40 CFR 60.44c(h), Approval Nos. 1468-1471(K)(1), 29.6.3(b)]
- (2) Fuel supplier certification shall include the following information: [40 CFR 60.48c(f), Approval Nos. 1468-1471(K)(2), 29.6.3(b)]
 - (a) The name of the oil supplier; [40 CFR 60.48c(f)(1)(i), Approval Nos. 1468-1471(k)(2)(a)]
 - (b) A statement from the oil supplier that the oil complies with the specification for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78 "Standard Specification for Fuel Oils"; [40 CFR 60.48c(f)(1)(ii), Approval Nos. 1468-1471(k)(2)(b)]
 - (c) The sulfur content of the fuel oil; and [Approval Nos. 1468-1471(k)(2)(c)]
 - (d) The method used to determine the sulfur content of the oil. [Approval Nos. 1468-1471(k)(2)(d)]
- (3) As an alternative to fuel supplier certification, the permittee may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the oil in the initial tank of oil to be fired in Emission Unit B004 and after each new shipment of oil is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. [40 CFR 60.46c(d)(2), Approval Nos. 1468-1471(K)(3), 29.6.3(b)]

d. Nitrogen Oxides (NO_x)

Emissions testing for compliance with the NO_x emission limitations for natural gas and fuel oil shall be conducted annually. Emission testing shall comply with the following requirements. [27.5.7(a), Approval Nos.

1468-1471(J)(1), 40 CFR 60.8(a)]

(1) A stack testing protocol shall be submitted to the Office of Air Resources for review and approval prior to the performance of any tests. The permittee shall provide the Office of Air Resources at least 60 days prior notice of any performance test. [27.5.7(b), Approval Nos. 1468-1471(J)(2)]

- (2) All test procedures used for emission testing shall be in accordance with the methods set forth in Appendix A of 40 CFR 60, or another method in Appendix A of 40 CFR 60, or another method approved by the Office of Air Resources and the USEPA. [27.5.7(c) Approval Nos. 1468-1471(J)(3)]
- (3) The permittee shall install any and all test ports or platforms necessary to conduct the required stack testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment. [27.5.7(d), Approval Nos. 1468-1471(J)(4), 40 CFR 60.8(e)]
- (4) All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitation. [27.5.7(e), Approval Nos. 1468-1471(J)(5), 40 CFR 60.8(c)]
- (5) All emissions testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable. [27.5.7(f), Approval Nos. 1468-1471(J)(7)]
- (6) Emissions testing shall consist of 3 one hour test runs. Compliance with the emission limitation must be demonstrated for each test run. [27.5.5, 40 CFR 60.8(f)]
- (7) A final report of the results of stack testing shall be submitted to the Office of Air Resources no later than 60 days following completion of the testing. [27.5.7(g), Approval Nos. 1468-1471(J)(6)]

5. Recordkeeping Requirements

- a. The permittee shall record and maintain records of the amounts of fuel combusted during each day. [40 CFR 60.48c(g)]
- **b.** Natural gas and fuel oil flows for Emission Unit B004 shall be continuously recorded. [Approval Nos. 1468-1471(I)(3), 29.6.3(b)]

c. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of Emission Unit B004. [40 CFR 60.7(b)]

- d. The permittee shall retain copies of all fuel supplier certifications or fuel oil analyses for each calendar quarter. These records shall be made accessible for review by the Office of Air Resources or the USEPA. This quarterly record shall include a certified statement, signed by the permittee, that the records of fuel supplier certifications or fuel oil analyses submitted represent all of the fuel combusted during the quarter. [40 CFR 60.46c(d)(2) and 60.48c(e)(11), Approval Nos. 1468-1471(L)(11)]
- e. The oxygen content of the flue gas for emission unit B004 shall be recorded continuously. [29.6.3(a), 40 CFR 64]
- f. Steam production for emission unit B004 shall be recorded continuously. [29.6.3(a), 40 CFR 64]
- g. The permittee shall record the oxygen content of the flue gas, the fuel flow rate and steam production and the damper position of the FGR fan a minimum of once per day. The date, time and measurement shall be recorded.[29.6.3(a), 40 CFR 64, Approval Nos. 1468-1471(I)(2)]
- h. The permittee shall maintain records of any scheduled and unscheduled maintenance to emission unit B004. [29.6.3(b)]
- i. The permittee shall maintain a record of the boiler load and corresponding FGR damper position based on the most recent adjustment/calibration of the FGR damper control system. [29.6.3(a), 40 CFR 64]

6. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.C of this permit or any other applicable air pollution control rules and regulations. [Approval Nos. 1468-1471(L)(12)]
- b. The permittee shall submit to the Administrator, on a quarterly basis, the quarterly report as specified in condition I.C.5.d. of this permit. Each quarterly report shall be postmarked by the 30th day following the end of the reporting period. [60.48c(d)]
- c. The permittee shall notify the Office of Air Resources whenever the oxygen content of the flue gas from B004 is less than 2% or greater than 8%. This notification shall be provided in the semi-annual monitoring

report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]

d. The permittee shall notify the Office of Air Resources whenever the damper position of the FGR fan for B004 is not in the correct position for the corresponding boiler load. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2. [29.6.3(a), 40 CFR 64]

7. Other Permit Conditions

- a. To the extent consistent with the requirements of Section I.C of this permit and applicable federal and state laws, B004 shall be operated in accordance with the representation of the equipment in the preconstruction permit application prepared by TRC Environmental Corporation dated October 1997 (TRC Project No. 23055). [Approval Nos. 1468-1471(M)(2)]
- **b.** The Sulfur Dioxide emission limits and fuel oil sulfur limits in section I.C. of this permit shall apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(i)]
- c. The Particulate Matter and opacity standards in section I.C. of this permit shall apply at all times, except during periods of startup, shutdown, or malfunction. [40 CFR 60.43c(d)]
- **d.** Emission Unit B004 is subject to the requirements of 40 CFR 60. Subpart A, "General Provisions." Compliance with all applicable provisions therein is required, unless otherwise stated in this permit.

D. Requirements for Emission Units B101 and B102

The following requirements are applicable to:

- Emission Unit B101, which is a 2.51 MMBTU/hr Cleaver Brooks fire tube boiler, Model No. CB 100-600, which burns #2 fuel oil.
- Emission Unit B102, which is a 4.18 MMBTU/hr Hurst fire tube boiler, Model No. N.B. 2461, which burns #2 fuel oil.

1. Emission Limitations

a. Particulates

The permittee shall not cause or permit the emissions of particulate matter in excess of 0.1 pounds per million BTU actual heat input. [13.2.1]

b. Opacity

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

c. Sulfur oxides

Unless the Director declares in writing after a hearing that a shortage of low sulfur fuel oil exists, the permittee shall not use or store fuel oil with a sulfur content greater than 1.0% by weight. [8.2]

2. Operating Requirements

a. The permittee shall tune Emission Units B101 and B102 at least once each year of operation, in accordance with the procedure described in Appendix A of RI APC Regulation No. 27. [27.4.2(c), 29.6.3(b)]

3. Testing Requirements

a. Particulates

Compliance with the particulate emissions limitations contained in Condition I.D.1.a of this permit, shall be determined by emission testing conducted by the permittee according to Method 5 of 40 CFR 60, Appendix A, or another method approved by the Office of Air Resources and the USEPA, shall be used. [13.3.1]

The requirements of particulate emissions testing may be waived if the Director and the USEPA:

- (1) Specifies or approves, in a specific case, the use of a reference method with minor changes in methodology; or
- (2) Approves the use of an equivalent or alternative method the results of which he has determined to be adequate for indicating whether the permittee is in compliance; or
- (3) Finds that the permittee has demonstrated by other means to the Director's and the USEPA's satisfaction that the source is in compliance with the relevant emissions standards. [13.3.3]

In the absence of data from particulate emissions testing, the Director and

the USEPA may determine that an emissions unit is or is not in compliance with the emissions limitations of Condition I.D.1.a of this permit based on available information including, but not limited to, type of fuel burned, design of unit, efficiency of air pollution control systems, operating and maintenance procedures, and emission test results on similar units. [13.3.2]

b. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.D.1.b of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

c. Sulfur oxides

Compliance with the sulfur limitations contained in Condition I.D.1.c of this permit shall be determined by procedures referenced in Condition II.U.2 of this permit.[29.6.3(b)]

4. Recordkeeping Requirements

- **a.** The permittee shall record the monthly fuel usage for Emission Units B101 and B102. [27.6.3]
- b. The permittee shall maintain records verifying that a tune-up has been performed in accordance with Condition I.D.2.a of this permit. These records shall include the following information: [27.6.8, 29.6.3(b)]
 - (1) The date the tune-up was performed,
 - (2) The name of the person who performed the tune-up,
 - (3) The final excess oxygen setting, and
 - (4) The O_2 /smoke curve that has been developed as part of the tune-up procedure.

E. Requirements for Emission Units B201, B301, B501, B502, B503, B504, B505, B506, B507 and B508

The following requirements are applicable to:

• Emission Unit B201, which is a 4.113 MMBTU/hr Weil McLain package boiler, Model No. 1388, which burns natural gas.

• Emission Unit B301, which is a 2.15 MMBTU/hr H.B. Smith cast iron boiler, Model No. N 90-319, which burns natural gas.

- Emission Units B501, B502, B503, and B504, which are 1.5 MMBTU/hr Petterson-Kelly package boilers, Model No. D1500, which burn natural gas.
- Emission Units B505 and B506, which are 1.20 MMBTU/hr Petterson-Kelly package boilers, Model No. D-1200, which burn natural gas.
- Emission Unit B507, which is a 1.20 MMBTU/hr RITE package boiler, which burns natural gas. B507 is an emergency/standby unit.
- Emission Unit B508, which is a 1.7 MMBTU/hr Weil McClain package boiler, Model No. 688, which burns natural gas. B508 is an emergency/standby unit.

1. Emission Limitations

a. Particulates

The permittee shall not cause or permit the emissions of particulate matter in excess of 0.1 pounds per million BTU actual heat input. [13.2.1]

b. Opacity

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

a. The permittee shall tune Emission Units B201, B301, B501, B502, B503, B504, B505, B506, B507 and B508 at least once each year of operation, in accordance with the procedure described in Appendix A of RI APC Regulation No. 27. [27.4.2(c), 29.6.3(b)]

3. Testing Requirements

a. Particulates

Compliance with the particulate emissions limitations contained in Condition I.E.1.a of this permit, shall be determined by emission testing conducted by the permittee according to Method 5 of 40 CFR 60, Appendix A, or another method approved by the Office of Air Resources and the USEPA, shall be used. [13.3.1]

The requirements of particulate emissions testing may be waived if the Director and the USEPA:

- (1) Specifies or approves, in a specific case, the use of a reference method with minor changes in methodology; or
- (2) Approves the use of an equivalent or alternative method the results of which he has determined to be adequate for indicating whether the permittee is in compliance; or
- (3) Finds that the permittee has demonstrated by other means to the Director's and the USEPA's satisfaction that the source is in compliance with the relevant emissions standards. [13.3.3]

In the absence of data from particulate emissions testing, the Director and the USEPA may determine that an emissions unit is or is not in compliance with the emissions limitations of Condition I.E.1.a of this permit based on available information including, but not limited to, type of fuel burned, design of unit, efficiency of air pollution control systems, operating and maintenance procedures, and emission test results on similar units. [13.3.2]

b. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.E.1.b of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

4. Recordkeeping Requirements

- **a.** The permittee shall record the monthly fuel usage for Emission Units B201, B301, B501, B502, B503, B504, B505, B506, B507 and B508 as follows: [27.6.3(a)]
 - Emission Units B201 and B301 individual meters for each boiler.
 - Emission Units B501 and B502 one metering device for both boilers.
 - Emission Units B503 and B504 one metering device for both boilers.
 - Emission Units B505 and B506 one metering device for both boilers.
 - Emission Units B507 and B508 individual meters for each boiler.
- **b.** The permittee shall maintain records verifying that a tune-up has been performed in accordance with Condition I.E.2.a of this permit. These records shall include the following information:

- (1) The date the tune-up was performed,
- (2) The name of the person who performed the tune-up,
- (3) The final excess oxygen setting, and
- (4) The O_2 /smoke curve that has been developed as part of the tune-up procedure. [27.6.8, 29.6.3(b)]

F. Requirements for Emission Unit G001

The following requirements are applicable to:

• Emission Unit G001, which is a 350 HP KATO internal combustion engine, Model No. 350SS9E, which burns diesel fuel. G001 is an emergency/standby unit.

1. Emission Limitations

a. Opacity

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

b. Sulfur oxides

Unless the Director declares in writing after a hearing that a shortage of low sulfur fuel oil exists, the permittee shall not use or store fuel oil with a sulfur content greater than 1.0% by weight. [8.2]

2. Operating Requirements

- **a.** G001 shall be operated only as a mechanical or electrical power source when the primary power source has been rendered inoperable. This does not include power interruptions pursuant to an interruptable power service agreement. [27.1.8]
- b. G001 shall be operated less than 500 hours during any consecutive 12-month period. If the hours of operation for G001 exceeds 500 hours in any 12-month period, the unit shall immediately be in compliance with RACT as specified in APC Regulation No. 27. [27.2.3]

3. Monitoring Requirements

a. The permittee shall maintain a non-resetable elapsed time meter on G001 to indicate, in cumulative hours, the elapsed engine operating time. [27.6.10(b)]

4. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.F.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

b. Sulfur oxides

Compliance with the sulfur limitations contained in Condition I.F.1.b of this permit shall be determined by procedures referenced in Condition II.U.2 of this permit.[29.6.3(b)]

5. Recordkeeping Requirements

- **a.** On a monthly basis, no later than 5 days after the first of each month, the permittee shall determine and record the hours of operation for G001 for the previous 12-month period. [27.6.10(c)]
- **b.** The permittee shall maintain records to certify that the ignition timing of G001 has been inspected and adjusted at least once every 3 years. [27.6.10(e)]

6. Reporting Requirements

a. The permittee shall notify the Office of Air Resources, in writing, whenever the hours of operation in any 12-month period exceeds 500 hours for G001. [27.6.10(d)]

G. Requirements for Emission Unit G002

The following requirements are applicable to:

• Emission Unit G002, which is a 343 HP Caterpillar internal combustion engine, Model No. 3406, which burns diesel fuel. G002 is an emergency/standby unit.

1. Emission Limitations

a. Opacity

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

b. Sulfur oxides

Unless the Director declares in writing after a hearing that a shortage of low sulfur fuel oil exists, the permittee shall not use or store fuel oil with a sulfur content greater than 1.0% by weight. [8.2]

2. **Operating Requirements**

- **a.** G002 shall be operated only as a mechanical or electrical power source when the primary power source has been rendered inoperable. This does not include power interruptions pursuant to an interruptable power service agreement. [27.1.8]
- b. G002 shall be operated less than 374 hours during any consecutive 12-month period. If the hours of operation for G002 exceed 374 hours in any 12-month period, the unit shall immediately be in compliance with RACT as specified in APC Regulation No. 27. [27.2.3, Approval Nos. 1468-1471(H)(5)]

3. Monitoring Requirements

a. The permittee shall maintain a non-resetable elapsed time meter on G002 to indicate, in cumulative hours, the elapsed engine operating time. [27.6.10(b)]

4. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.G.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

b. Sulfur oxides

Compliance with the sulfur limitations contained in Condition I.G.1.b of this permit shall be determined by procedures referenced in Condition II.U.2 of this permit.[29.6.3(b)]

5. Recordkeeping Requirements

- **a.** On a monthly basis, no later than 5 days after the first of each month, the permittee shall determine and record the hours of operation for G002 for the previous 12-month period. [27.6.10(c)]
- **b.** The permittee shall maintain records to certify that the ignition timing of G002 has been inspected and adjusted at least once every 3 years. [27.6.10(e), 29.6.3(b)]

6. Reporting Requirements

a. The permittee shall notify the Office of Air Resources, in writing, whenever the hours of operation in any 12-month period exceed 374 hours for G002. [27.6.10(d)]

7. Other Permit Conditions

a. To the extent consistent with the requirements of Section I.G of this permit and applicable federal and state laws, G002 shall be operated in accordance with the representation of the equipment in the preconstruction permit application prepared by TRC Environmental Corporation dated October 1997 (TRC Project No. 23055). [Approval Nos. 1468-1471(M)(2)]

H. Requirements for Emission Unit G003

The following requirements are applicable to:

• Emission Unit G003, which is a 1297 HP Caterpillar internal combustion engine/generator set, Model No. 3508, which burns diesel fuel. G003 is an emergency/standby unit.

1. Emission Limitations

a. Opacity

Visible emissions from Emission Unit G003 shall not exceed 10% opacity

except for a period or periods aggregating no more than three minutes in any one hour. This visible emission limitation shall not apply during startup of an engine. Engine startup shall be defined as the first ten minutes of firing following the initiation of firing. [Approval No. 1698(A)(2), 1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

b. Sulfur Dioxide

All diesel fuel burned in Emission Unit G003 shall contain no more than 0.3 percent sulfur by weight. [Approval No. 1698(A)(1), 8.2]

2. Operating Requirements

- **a.** The maximum firing rate for Emission Unit G003 shall not exceed 65.8 gallons per hour. [Approval No. 1698(B)(1)]
- **b.** Emission Unit G003 shall not operate more than 500 hours in any 12-month period. [Approval No. 1698(B)(2)]
- c. Emission Unit G003 shall be operated only to provide emergency electrical power in the event of a power outage or for maintenance purposes to assure that G003 is in working order. [Approval No. 1698(B)(3), 27.1.8]
- **d.** Emission Unit G003 shall not be used in conjunction with any utility voluntary demand reduction program. [Approval No. 1698(B)(4)]

3. Monitoring Requirements

a. Emission Unit G003 shall be equipped with a non-resetable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time. [Approval No. 1698(C)(1), 27.6.10(b)]

4. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.H.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

b. Sulfur Dioxide

(1) Compliance with the diesel fuel sulfur limits may be determined based on a certification from the fuel supplier. Fuel supplier certifications shall include the following information: [Approval No. 1698(D)(1), 29.6.3(b)]

- (a) The name of the fuel supplier; [Approval No. 1698(D)(1)(a)]
- (b) The sulfur content of the fuel from which the shipment came or the shipment itself; [Approval No. 1698(D)(1)(b)]
- (c) The location of the fuel when the sample was drawn for analysis to determine the sulfur content of the fuel, specifically including whether the fuel was sampled as delivered to the University of Rhode Island or whether the sample was drawn from fuel in storage at the fuel supplier's facility or another location; [Approval No. 1698(D)(1)(c)]
- (d) The method used to determine the sulfur content of the fuel. [Approval No. 1698(D)(1)(d)]
- (2) As an alternative to fuel supplier certification, the permittee may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the fuel in the initial tank(s) of fuel to be fired in Emission Unit G003 and after each new shipment of fuel is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any fuel is combusted. [Approval No. 1698(D)(2),29.6.3(b)]

5. Recordkeeping Requirements

- a. The permittee shall, on a monthly basis, no later than 5 days after the first of each month, determine and record the hours of operation and fuel use for Emission Unit G003 for the previous 12-month period. [Approval No. 1698(E)(1), 27.6.10(c)]
- b. The permittee shall maintain copies of all fuel supplier certifications of fuel analyses and these copies shall be made accessible for review by the Office of Air Resources or its authorized representative and USEPA. These records shall include a certified statement, signed by the permittee, that the records represent all the fuel combusted at the facility. [Approval 1698(E)(4)]

6. Reporting Requirements

a. The permittee shall notify the Office of Air Resources, in writing, whenever the hours of operation in any 12-month period exceed 500 hours for Emission Unit G003. [Approval No. 1698(E)(2), 27.6.10(d)]

b. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of Section I.H of this permit or any other applicable air pollution control rules and regulations. [Approval No. 1698(E)(3)]

7. Other Permit Conditions

- **a.** To the extent consistent with the requirements of Section I.H of this permit and applicable Federal and State laws, Emission Unit G003 shall be operated in accordance with the representation of the equipment in the preconstruction permit application. [Approval No. 1698(F)(1)]
- b. At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source. [Approval No. 1698(F)(3)]

I. Requirements for Emission Unit I001

The following requirements are applicable to:

• Emission Unit I001, which is a Midco 2 chamber Pathological Waste Incinerator, Model No. J83-DS, which burns natural gas.

1. Emission Limitations

a. Particulates

Emissions of particulate matter discharged to the atmosphere from Emission Unit I001 shall not exceed 0.08 grains/dscf (0.18 grams/dscm) of particulate matter corrected to 12 percent CO₂, maximum two-hour average. [12.3.2]

b. Opacity

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

a. The permittee will not be subject to certain sections of Air Pollution Control Regulation No. 39, Hospital/Medical/Infectious Waste Incinerators, specifically sections 39.3 through 39.10 if it is burning only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste, provided that the permittee has received a written determination from the Office of Air Resources and that records are maintained in accordance with Section I.I.5.a. of this permit. [39.2.2]

3. Monitoring Requirements

- a. The permittee shall monitor the primary and secondary chamber temperature of Emission Unit I001 continuously. [29.6.3(b)]
- b. The permittee shall observe the discharge to the atmosphere from Emission Unit I001 during each burn cycle to determine if visible emissions are present. [29.6.3(b)]

4. Testing Requirements

a. Particulates

Compliance with condition I.I.1.a shall be determined by one of the following procedures:

- (1) Emission testing conducted by the owner or operator of the source according to Method 5 of 40 CFR 60, or by another method that has the prior approval of or is required by the Director and the USEPA. [12.5(a)]
- (2) Technical evaluation based on such factors which may include type(s) of refuse burned; design of the incinerator, design efficiency of air pollution control systems, and emission test results on similar incinerators; [12.5(b)]
- (3) Any other emission testing method as required and approved by the Director. [12.5(c)]

b. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.I.1.b of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

5. Recordkeeping Requirements

- **a.** The permittee shall maintain records continuously and summarize on a quarterly basis, of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned in Emission Unit I001. [39.2.2(b)]
- **b.** The permittee shall record the primary and secondary chamber temperature of emission unit I001 continuously. [29.6.3(b)]
- c. The permittee shall record the date and time of each observation of the discharge to the atmosphere from Emission Unit I001 and record if visible emissions were or were not observed. If visible emissions were observed, the permittee shall record the corrective action taken to eliminate the visible emissions. [29.6.3(b)]
- d. The permittee shall maintain records of any scheduled and unscheduled maintenance to emission unit I001.[29.6.3(b)]

6. Reporting Requirements

a. The permittee shall notify the Office of Air Resources, in writing, that it is burning only pathological, low-level radioactive, and/or chemotherapeutic waste. [39.2.2(a)]

J. Requirements for Emission Units T001, T002, and T003

The following requirements are applicable to:

• Emission Units T001, T002, and T003, which are No. 2 fuel oil storage tanks. Each tank has storage capacity of 29,600 gallons.

1. Recordkeeping Requirements

a. The permittee shall maintain records showing the dimension and storage capacity of T001, T002, and T003. These records shall be maintained for the life of the vessel. [40 CFR 60.116b(a)-(b)]

K. Facility Requirements

1. Operating Requirements

a. The permittee shall limit the combined quantity of #2 fuel oil and natural gas combusted in Emission Units B001, B002, B003, and B004 to 5,487,365 gallons of #2 fuel oil equivalents or less for any consecutive 12 month period. For purposes of this limitation, each 243 cubic feet of natural gas shall be considered equivalent to one gallon of #2 fuel oil. [Approval Nos. 1468-1471(H)(4)]

2. Recordkeeping Requirements

a. The permittee shall, on a monthly basis, no later than 5 days after the first of the month, determine the fuel use in Emission Units B001, B002, B003, and B004 for the previous 12 months. The permittee shall keep records of this determination and provide such records to the Office of Air Resources upon request. [Approval Nos. 1468-1471(L)(3)]

3. Reporting Requirements

a. The permittee shall notify the Office of Air Resources whenever its fuel usage for Emission Units B001, B002, B003, and B004 for any consecutive 12 month period exceeds 5,487,365 gallons of #2 fuel oil equivalents for the combined quantity of natural gas fuel and #2 fuel oil. [Approval Nos. 1468-1471(L)(4)]

SECTION II. GENERAL CONDITIONS

A. Annual Emissions Fee Payment

The permittee shall pay an annual emissions fee as established in Air Pollution Control Regulation No. 28 "Operating Permit Fees." [29.6.8(d)]

B. Permit Renewal and Expiration

This permit is issued for a fixed term of 5 years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least 12 months prior to the date of permit expiration. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by the Office of Air Resources on the renewal application. In such an event, the permit shield in Condition II.Y of this permit shall extend beyond the original permit term until renewal. This protection shall cease to apply if, subsequent to a completeness determination, the applicant fails to submit by the deadline specified in writing by the Office of Air Resources any additional information identified as being needed to process the application. The application for renewal shall include the current permit number, description of permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. [29.6.8(a), 29.4.2(c), 29.4.6]

C. Transfer of Ownership or Operation

This permit is nontransferable by the permittee. Future owners and operators must obtain a new operating permit from the Office of Air Resources. A change in ownership or operational control of this source is treated as an administrative permit amendment if no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Office of Air Resources. [29.10.1(a)(4)]

D. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege. [29.6.8(c)(4)]

E. Submissions

1. Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to:

RIDEM - Office Air Resources Compliance Assurance Section 235 Promenade St. Room 230 Providence, RI 02908

2. Any records, compliance certifications and monitoring data required by the provisions of this permit to be submitted to USEPA shall be sent to:

USEPA Region I Office of Environmental Stewardship Director, Air Compliance Program Attn: Air Compliance Clerk One Congress St., Suite 1100 (SEA) Boston, MA 02114-2023

3. Any document submitted shall be certified as being true, accurate, and complete by a responsible official. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements, and information in the certification are true, accurate, and complete. [29.6.8(e)]

F. <u>Inspection and Entry</u>

- 1. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter this facility at all reasonable times for the purpose of: [29.6.8(f)(1)]
 - a. having access to and copying at reasonable times any records that must be kept under the conditions of this permit; [29.6.8(f)(2)]
 - **b.** inspecting at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and [29.6.8(f)(3)]
 - sampling or monitoring, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements. [RIGL 23-23-5(7), 29.6.8(f)(4), Approval Nos. 1468-1471(M)(3), Approval No. 1698(F)(2)]

Nothing in this condition shall limit the ability of the USEPA to inspect or enter the premises of the permittee under Section 114 or other provisions of the Clean Air Act.

G. Compliance

1. The permittee must comply with all conditions of this permit. Any noncompliance with a federally-enforceable permit condition constitutes a violation of the Clean Air Act and is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Any noncompliance with a permit condition designated as not federally enforceable constitutes a violation of state rules only and is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. [29.6.8(c)(1)]

- 2. For each unit at the facility for which an applicable requirement becomes effective during the permit term, the permittee shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [29.6.5(a)]
- 3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [29.6.8(c)(2)]

H. Excess Emissions Due to an Emergency

As the term is used in this condition an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes this source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [29.6.11(b)]

Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain a health based air quality standard.

The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that: [29.6.11(a) & 29.6.11(c)]

1. an emergency occurred and that the permittee can identify the cause(s) of the emergency; [29.6.11(c)(1)]

2. the permitted facility was at the time being properly operated; [29.6.11(c)(2)]

- during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and [29.6.11(c)(3)]
- 4. the permittee submitted notice of the emergency to the Office of Air Resources within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements of Condition II.AA.3 of this permit. [29.6.11(c)(4)]

The permittee shall have the burden of proof in seeking to establish the occurrence of an emergency. [29.6.11(d)]

I. Duty to Provide Information

The permittee shall furnish to the Office of Air Resources, within a reasonable time, any pertinent information that the Office of Air Resources may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Office of Air Resources copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. [29.6.8(c)(5)]

J. Duty to Supplement

The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the Office of Air Resources. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit. [29.5.4]

K. Reopening for Cause

The Office of Air Resources will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

1. Additional requirements under the Clean Air Act become applicable to a major source 3 or more years prior to the expiration date of this permit. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit, unless this permit or any of its terms and conditions have been extended. [29.6.13(a)]

2. The Office of Air Resources or the Administrator determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. [29.6.13(c)]

3. The Office of Air Resources or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [29.6.13(d)]

Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Office of Air Resources at least 30 days in advance of the date that this permit is to be reopened, except that the Office of Air Resources may provide a shorter time period (but not less than five days) in the case of an emergency. [29.9.5(b)]

Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. [29.9.5(a)]

All permit conditions remain in effect until such time as the Office of Air Resources takes final action. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [§70.6(a)(6)(iii)]

L. <u>Severability Clause</u>

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [29.6.8(b)]

M. Off-Permit Changes

- 1. The permittee is allowed to make certain changes that are not addressed or prohibited by this permit without a permit revision, provided that the following conditions are met: [29.11.2(a)]
 - **a.** Each such change shall not violate any term or condition of this permit. [29.11.2(b)]
 - **b.** Each change shall comply with all applicable requirements. [29.11.2(b)]
 - c. Changes under this provision may not include changes or activities subject to any requirement under Title IV or modifications under any provision of Title I of the Clean Air Act. [29.11.2(a)]
 - **d.** Before the permit change is made, the permittee must provide

contemporaneous written notice to the Office of Air Resources and the USEPA Region I, except for changes that qualify as insignificant activities in Appendix A of APC Regulation No. 29. This notice shall describe each change, including the date, and change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change. [29.11.2(c)]

- e. The permit shield does not apply to changes made under this provision. [29.11.2(d)]
- f. The permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes, including any other data necessary to show compliance with applicable ambient air quality standards. The record shall reside at the permittee's facility. [29.11.2(e)]
- 2. Changes made pursuant to this provision shall not be exempt from the requirement to obtain a minor source permit pursuant to the requirements of Air Pollution Control Regulation No. 9, if applicable. [29.11.2(a)]
- 3. Changes made pursuant to this provision shall be incorporated into this permit at the time of renewal. [29.11.2(f)]

N. <u>Section 502(b)(10) Changes</u>

- 1. The permittee is allowed to make changes within this permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit, whether expressed therein as a rate of emissions or in terms of total emissions and are not Title I modifications. This class of changes does not include:
 - a. changes that would violate applicable requirements; or
 - b. changes to federally-enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements. [29.11.1(a), 29.1.36]
- 2. The permittee shall provide written notice to the Office of Air Resources and the USEPA Region I of any change made under this provision. The notice must be received by the Office of Air Resources no later than fourteen (14) days in advance of the proposed changes. The notice shall include information describing the nature of the change, the effect of the change on the emission of any air

contaminant, the scheduled completion date of the planned change and identify any permit terms or conditions that are no longer applicable as a result of the change. The permittee shall attach each notice to its copy of this permit. [29.11.1(a)(1), 29.11.1(a)(2)]

- 3. The permittee shall be allowed to make such change proposed in its notice the day following the last day of the advance notice described in paragraph 2 if the Office of Air Resources has not responded nor objected to the proposed change on or before that day. [29.11.1(b)]
- 4. Any permit shield provided in this permit does not apply to changes made under this provision. If subsequent changes cause the permittee's operations and emissions to revert to those anticipated in this permit, the permittee resumes compliance with the terms and conditions of the permit, and has provided the Office of Air Resources and USEPA with a minimum of fourteen (14) days advance notice of such changes in accordance with the provisions of paragraph 2, the permit shield shall be reinstated in accordance with terms and conditions stated in this permit. [29.11.1(c)]
- 5. Changes made pursuant to this provision shall be incorporated into the operating permit at the time of renewal. [29.11.1(d)]

O. <u>Emissions Trading</u>

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. [29.6.6(a)]

P. Emission of Air Contaminants Detrimental to Person or Property

The permittee shall not emit any air contaminant which either alone or in connection with other emissions, by reason of their concentration or duration, may be injurious to human, plant or animal life, or cause damage to property or which unreasonably interferes with the enjoyment of life or property. [7.1]

Q. Odors

- 1. The permittee shall not emit or cause to be emitted into the atmosphere any air contaminant or combination of air contaminants which creates an objectionable odor beyond the property line of this facility. [17.1]
- 2. A staff member of the Office of Air Resources shall determine by personal observation if an odor is objectionable, taking into account its nature, concentration, location, duration and source. [17.2]

R. <u>Visible Emissions</u>

1. Except as may be specified in other provisions of this permit, the permittee shall not emit into the atmosphere, from any emission unit, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Tests for determining compliance with the opacity limitations specified in this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

S. Open Fires

It shall be unlawful for the permittee to burn any material in an open fire, except as provided in APC Regulation No. 4, Section 4.3. [4.2]

T. <u>Construction Permits</u>

It shall be unlawful for the permittee to construct, install, modify or cause the construction, installation or modification of any stationary source subject to the provisions of APC Regulation No. 9 without obtaining either a minor source permit or a major source permit from the Director. [9.2.1, 40 CFR 60.15]

U. Sulfur in Fuel

- 1. Except as may be specified in other provisions of this permit, unless the Director declares in writing after a hearing that a shortage of low sulfur fuel exists, the permittee shall not use or store fuel oil with a sulfur content greater than 1.0% by weight, except for use with marine vessels or motor vehicles. [8.2, 8.3.6]
- 2. Compliance with the sulfur in fuel limitations contained in this section shall be determined by the procedures listed below or by another method deemed equivalent by the Director and the USEPA: [29.6.3(b)]
 - **a.** For each shipment of fuel oil, the permittee shall obtain a certification from the fuel supplier which contains:
 - (1) For distillate fuel oil:
 - (a) the name of the supplier
 - (b) a statement that the oil complies with the specification for fuel oil number 1 or 2, as defined by the American Society

for Testing and Materials in ASTM D396-78 "Standard Specification for Fuel Oils." [27.6.4(a)-(b)]

- (2) For residual fuel oil:
 - (a) The name of the supplier,
 - (b) The nitrogen and sulfur content of the oil and the ASTM method used to determine the nitrogen and sulfur content of the oil,
 - (c) The location of the oil when the sample was drawn for analysis to determine the nitrogen and sulfur content of the oil, specifically including whether the oil was sampled as delivered to the permittee or whether the sample was drawn from oil in storage at the oil suppliers/refiners facility or another location. [27.6.5 (a)-(d)]
- (3) For diesel fuel oil:
 - (a) the name of the supplier,
 - (b) a statement that the oil complies with the specification for diesel fuel oil grade 1-D or 2-D, as defined by the American Society for Testing and Materials in ASTM D975-03 "Standard Specification for Fuel Oils." [29.6.3]
- **b.** As an alternative to fuel oil certification, the permittee may elect to sample the fuel oil prior to combustion. Sampling and analysis shall be conducted after each new shipment of fuel oil is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any fuel oil is combusted. [27.6.6, 8.4.1(b)]
- c. All fuel oil must be sampled and analyzed according to ASTM methods which have the prior approval of or are required by the Office of Air Resources. [27.6.6, 8.4.1(b)]
- d. Copies of the fuel oil analysis sheets shall be maintained at the facility and be made accessible for review by the Office of Air Resources or designated personnel of the Office of Air Resources and the USEPA. These records shall include a certified statement, signed by a responsible official, that the records represent all of the fuel combusted during each quarter. [27.6.7, 29.6.4(a)(1)]
- e. The Director may require, under his supervision, the collection of fossil fuel samples for the purpose of determining compliance with the sulfur

limitations in this permit. Sampling and analysis of fossil fuels under Condition II.U.2 of this permit shall not limit the collection of samples under this condition. [8.4.3]

V. <u>Air Pollution Episodes</u>

Conditions justifying the proclamation of an air pollution alert, air pollution warning or air pollution emergency shall be deemed to exist whenever the Director determines that the accumulation of air pollutants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of persons. If the governor declares an air pollution alert, air pollution warning or air pollution emergency, the permittee shall comply with the applicable requirements contained in APC Regulation No. 10. [10.1]

W. Fugitive Dust

The permittee shall not cause or permit any materials, including but not limited to sand, gravel, soil, aggregate and any other organic or inorganic solid matter capable of releasing dust, to be handled, transported, mined, quarried, stored or otherwise utilized in any way so as to cause airborne particulate matter to travel beyond the property line of the facility without taking adequate precautions to prevent particulate matter from becoming airborne. Such precaution shall be in accordance with good industrial practice as determined by the Director and/or shall be other reasonable fugitive dust prevention measures as determined by the Director. [5.2]

X. Compliance Certifications

- 1. The permittee shall submit a certification of compliance with permit terms and conditions annually. [29.6.5(c)(1)]
- **2.** The certification shall describe the following:
 - **a.** the permit term or condition that is the basis of the certification; [29.6.5(c)(3)a]
 - **b.** the current compliance status; [29.6.5(c)(3)b]
 - c. whether compliance was continuous or intermittent; and [29.6.5(c)(3)c]
 - **d.** the methods used for determining compliance, currently and over the reporting period. [29.6.5(c)(3)d]
- 3. All compliance certifications shall be submitted to the Office of Air Resources and to the USEPA Region I. They shall be submitted within 60 days following the end of the reporting period which is the calendar year unless otherwise specified. [29.6.5(c)(4)]

4. All compliance certifications shall be certified as being true, accurate, and complete by a responsible official. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements, and information in the certification are true, accurate, and complete. [29.6.8(e)]

Y. Permit Shield

- Compliance with the terms and conditions of this permit shall be deemed compliance with all requirements applicable to the source in the following: Approval Nos. 1468-1471, 1698 and RI APC Regulation Nos. 1, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 17, 27, 28, 29, 39, 40 CFR 64 and 40 CFR 60 Subpart Dc, Kb, and Subpart A. [29.6.12(a)(1)]
- 2. The Office of Air Resources has determined that units B001, B002 B003, B004, B101, B102, B201, B301, B501, B502, B503, B504, B505, B506, B507, B508, G001, G002, G003, I001, E001, T001, T002 and T003 are not subject to the following: Rhode Island APC Regulation Nos. 2, 3, 11, 15, 16, 19, 20, 21, 22, 23, 24, 25, 26, 30, 31, 32, 33, 35, 36, and 41. [29.6.12(a)(2)]
- 3. Nothing in this permit shall alter or affect the following:
 - a. the provisions of Section 303 of the Clean Air Act, including the authority of the USEPA under that Section. [29.6.12(c)(1)]
 - **b.** the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [29.6.12(c)(2)]
 - c. the applicable requirements of the acid rain program consistent with Section 408 of the Clean Air Act. [29.6.12(c)(3)]
 - **d.** the ability of the USEPA to obtain information under Section 114 of the Act. [29.6.12(c)(4)]
- 4. If it is determined that this operating permit was issued based on inaccurate or incomplete information provided by the permittee, this permit shield shall be void as to the portions of this permit which are affected, directly and indirectly, by the inaccurate or incomplete information. [29.6.12(d)]

Z. Recordkeeping

1. The permittee shall, at the request of the Director, maintain records of and provide data on operational processes, fuel usage, raw materials, stack dimensions, exhaust gas flow rates and temperatures, emissions of air contaminants, steam or hot water generator capacities, types of equipment producing air contaminants and air pollution control systems or other data that

may be necessary to determine if the facility is in compliance with air pollution control regulations. [14.2.1]

- 2. All records and supporting information required by this permit for Units B001, B002, B003, B004, T001, T002, and T003 shall be maintained at the permittee's Lippitt Hall - Power Plant facility. All records and supporting information required by this permit for Units B201, B301, B501, B502, B503, B504, B505, B506, B507 and B508 shall be maintained at the permittee's Utilities Engineer's Office. All records and supporting information required by this permit for Unit G001 shall be maintained at the permittee's Lippitt Hall - Power Plant facility. All records and supporting information required by this permit for Units G002 and E001 shall be maintained at the permittee's 523 Plains Road facility. All records and supporting information required by this permit for Unit G003 shall be maintained at the permittee's Ryan Center facility. All records and supporting information required by this permit for Unit I001 shall be maintained at the permittee's Fogarty Hall facility. All records and supporting information required by this permit shall be maintained for a period of at least 5 years from the date of sample monitoring, measurement, report or application, and shall be made available to representatives of the Office of Air Resources and the USEPA upon request. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [14.2.1, 29.6.4(a)(2), 27.6.11, Approval Nos. 1468-1471(L)(13), 39.2.2(b), 40 CFR 60.48c(i), Approval No. 1698(E)(8)]
- **3.** The permittee shall keep records of required monitoring information that include the following:
 - a. The date, place, and time of sampling or measurements; [29.6.4(a)(1)a]
 - **b.** The date(s) analyses were performed; [29.6.4(a)(1)b]
 - **c.** The company or entity that performed the analyses; [29.6.4(a)(1)c]
 - **d.** The analytical techniques or methods used; [29.6.4(a)(1)d]
 - **e.** The results of such analyses; and [29.6.4(a)(1)e]
 - **f.** The operating conditions as existing at the time of sampling or measurement. [29.6.4(a)(1)f]

AA. Reporting

1. The information recorded by the permittee pursuant to Condition II.Z.1 of this Section shall be summarized and reported at least annually to the Director. It shall be submitted by April 15th unless otherwise specified.[14.2.2] Information

submitted pursuant to this condition will be correlated with applicable emissions limitations and other applicable emissions information and will be available for public inspection. [14.2.3]

- 2. The permittee shall submit reports of any required monitoring for each semiannual period ending 30 June and 31 December of each calendar year. These reports shall be due to the Office of Air Resources no later than forty-five (45) days after the end of the reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Condition II.X.4 of this permit. [29.6.4(b)(1)]
- 3. Deviations from permit conditions, including those attributable to upset conditions as defined in this permit, shall be reported, in writing, within five (5) business days of the deviation, to the Office of Air Resources. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. Each report must be certified by a responsible official consistent with Condition II.X.4 of this permit. [29.6.4(b)(2), Approval No. 1698(E)(7)]
- 4. The Office of Air Resources shall be notified in writing of any planned physical change or operational change to the emissions units and control devices identified in this permit. Such notification shall include information describing the nature of the change, information describing the effect of the change on the emissions of air contaminants and the scheduled completion date of the planned change. Any change which may result in an increased emission rate of any air contaminant shall be subject to approval of the Office of Air Resources. [40 CFR 60.7(a)(4), Approval Nos. 1468-1471(L)(10), Approval No. 1698(E)(6)]

BB. Credible Evidence

For the purpose of submitting compliance certifications or establishing whether or not the permittee has violated or is in violation of any provision of this permit, the methods listed in this permit shall be used, as applicable. However, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the permittee would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed. [40 CFR 51.212(c), 52.12(c), 52.33(a)]

CC. Emission Statements

1. The permittee shall submit annually an emission statement which includes information for both VOC and NO_x if facility wide actual emissions are 25 tons per year of either pollutant. Emission statements shall be submitted to the Office of Air Resources on April 15th of each year unless otherwise specified. The permittee may apply to the Office of Air Resources to be allowed to discontinue

submitting annual emission statements if actual emissions at the facility decrease to below 10 tons per year as a result of a permanent process change. [14.3.1]

The permittee shall submit an emission statement in a format approved by the Office of Air Resources. The emission statement shall contain the following information: [14.3.2]

- **a.** A certification that the information contained in the emission statement is accurate and complete to the best knowledge of the certifying individual.
- **b.** The full name, title, signature, date of signature, and telephone number of the certifying individual.
- **c.** Facility identification information, including the full name, physical location, mailing address, latitude, longitude, and four digit SIC code(s).
- **d.** Process data pertaining to each process emitting VOC and/or NO_x, including:
 - (1) Annual and typical ozone season daily fuel use,
 - (2) Annual and typical ozone season daily process rate(s), and
 - (3) Process throughput while air pollution control equipment was not in operation.
- e. Operating data pertaining to each process emitting VOC and/or NO_x during the reporting year, including:
 - (1) Percentage annual throughput,
 - (2) Average hours of operation per day during the reporting year and on a typical ozone season day,
 - (3) Average number of days of operation per week during the reporting year and during a typical ozone season week, and
 - (4) Weeks of operation during the reporting year and during the peak ozone season.
- **f.** Control equipment information, including:
 - (1) Specific primary and secondary control equipment for each process emitting VOC and/or NO_x,
 - (2) Current overall control efficiency for each piece of control equipment (indicated by percent capture and percent destruction or removal), and
 - (3) Control equipment downtime during the reporting year and during the peak ozone season.

- **g.** Emissions information, including:
 - (1) Actual annual and typical ozone season daily emissions of VOC and NO_x for each process. Emissions should be reported in tons per year and in pounds per day.
 - (2) A description of the emission calculation method and, if applicable, emission factor(s) used, and
 - (3) The calendar year for which emissions are reported.
- **h.** Any additional information required by the Director to document the facility's emission statements.

DD. <u>Miscellaneous Conditions</u>

- 1. This permit may be modified, revoked, reopened, reissued, or terminated for cause. The filing of a request, by the permittee, for a permit modification, revocation and reissuance or termination or of a notification of planned changes or anticipated noncompliance does not release the permittee from the conditions of this permit. [29.6.8(c)(3)]
- 2. Any application for a permit revision need only submit information related to the proposed change. [29.4.3(c)]
- 3. Terms not otherwise defined in this permit shall have the meaning given to such terms in 40 CFR 60.2, the Clean Air Act as amended in 1990 or the referenced regulation as applicable.
- **4.** Where more than one condition in this permit applies to an emission unit and/or the entire facility, the most stringent condition shall apply.

SECTION III. SPECIAL CONDITIONS

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

A. Ozone-depleting Substances

- 1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVAC) in Subpart B:
 - **a.** Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices of 40 CFR 82.156.
 - **b.** Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment of 40 CFR 82.158.
 - **c.** Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - **d.** Persons disposing of small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152) must comply with recordkeeping requirements of 40 CFR 82.166.
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair equipment requirements of 40 CFR 82.156.
 - **f.** Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- 2. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program."

B. Prevention of Accidental Releases

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

Your facility is subject to the requirements of the General Duty Clause under Section 112(r)(1) of the Clean Air Act. This clause specifies that owners or operators of stationary sources producing, processing, handling or storing a chemical in any quantity listed in 40 CFR part 68 or any other extremely hazardous substance have a general duty to identify hazards associated with these substances, and to design, operate and maintain a safe facility, in order to prevent releases and to minimize the consequences of accidental releases which may occur.